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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to a pocket form information processor, and relates to the input unit for making alter operation easy.

[0002]

[Description of the Prior Art] A pocket form information processor is the gestalt which miniaturized further what is sold in the commercial scene as an information processor of the laptop form which used the keyboard for the input device. Although the pocket form information processor which uses a keyboard only neither in what was equipped with the pen input function using the tablet which consists of pressure sensitive devices etc., nor a pen input was generally known, the alter operation in the finger of the hand of the direction with the body section of equipment is impossible, and the problem was in operability.

[0003]

[Problem(s) to be Solved by the Invention] The object of this invention solves the trouble of the conventional technique, and makes alter operation possible also with the finger of the hand of the direction with the body section of equipment, and is to offer the pocket form information processor which can also use together and use keyboard entry and a pen input.

[0004]

[Means for Solving the Problem] This invention improves operability in a pocket form information processor by preparing an operational input key with the finger of the hand which had this body section of equipment in the covering and protecting-liquid crystal display of the body section of equipment lid, the rear face of this body section of equipment, etc.

[0005] In the condition of having rotated the lid which prepared the input key 360 degrees, and having put on the background of the body section of equipment, this input key is arranged in the location which the body section of equipment has and can operate an input key with the finger of a hand. Moreover, in the case of the standard input unit of Key Caps, when a lid is rotated 360 degrees and it puts on the background of the body section of equipment, alter operation is made easy by changing a key pattern so that it may be suitable for finger actuation.

[0006] In the pocket form information processor specifically equipped with the lid which puts the 1st means on the front face of a control board, the body section of equipment which held the liquid crystal display, and this body section of equipment, and protects said liquid crystal display It is characterized by preparing the input unit in which alter operation is possible with the finger of the hand of the direction which had this body section of equipment in the condition of having rotated said lid 360 degrees and having attached to the rear face of the body section of equipment. In this case, said input unit is good to make it prepare in said lid.

[0007] Moreover, the 2nd means is characterized by preparing the input key in which alter operation is possible with the finger of the hand which had this body section of equipment in said body section of equipment in the information processor which equipped the body section of equipment with the liquid

crystal display as a control board and a display screen. In this case, said input key is good to prepare in the side face and/or rear face of said body section of equipment.

[0008] moreover, the 3rd means establish the control means which make the functional allotment change of the key pattern of an input unit, when make a control board, the body section of equipment which held the liquid crystal display, and the lid which protect this rotate said lid 360 degrees in the information processor which prepared the input unit and it put on the rear face of the body section of equipment, and it be characterize by the ability to be able to carry out alter operation with the finger of a hand with the body section of equipment.

[0009] Moreover, in the information processor which prepared the input device in a control board, the body section of equipment which held the liquid crystal display as a display screen, and the lid which protects this, the 4th means prepares a key pattern change carbon button in the tablet which consists of pressure sensitive devices etc., and is characterize by enabling it to change the key pattern of an input device by the control means according to actuation of this change carbon button.

[0010] Moreover, the 5th means is set to the information processor which equipped with the input unit a control board, the body section of equipment which held the liquid crystal display as a display screen, and the lid which protects this. A key pattern change key is prepared in the rear face of a field to which the input key of a lid with an input unit is attached. By changing, when this lid is rotated 360 degrees and it puts on the rear face of the body section of equipment, and a key's touching the heights of the body section of equipment, and changing the key pattern of an input unit by the control means, it is characterized by the ability to carry out alter operation with the finger of a hand with the body section of equipment.

[0011] Furthermore, the 6th means is set to the information processor which equipped with the input unit a control board, the body section of equipment which held the liquid crystal display as a display screen, and the lid which protects this. When preparing a key pattern changeover switch in the rear face of said body section of equipment and rotating a lid with an input unit 360 degrees By operating said changeover switch to the heights prepared in the rear face of the field in which the input key of this lid was prepared, and changing the key pattern of said input unit to them by the control means, it is characterized by the ability to carry out alter operation with the finger of a hand with the body section of equipment.

[0012]

[Embodiment of the Invention] Hereafter, the operation gestalt of this invention is explained with reference to drawing 1 thru/or drawing 11.

[0013] Drawing 1 is the perspective view showing the busy condition of the pocket form information processor concerning the operation gestalt of this invention. The pocket form division processor concerning this operation gestalt is what formed input keys 3a, 3b, 3c, and 3d (input unit 3) in the lid 2 which holds the liquid crystal display as a control board and a display screen in the body section 1 of equipment, and protects this, and drawing 1 is the perspective view which looked up at the place which the user is having and using by the hand 14 actually from the bottom. The alter operation of this pocket form information processor used together with the pen input becomes possible by rotating a lid 2 360 degrees, and the description's being in the configuration which could be made to carry out alter operation, and constituting from a condition of having turned to the rear face of the body section 1 of equipment, and having put on it, in this way with the finger of the hand 14 with the body section 1 of equipment. A pen input uses what installed an input panel like the well-known transparence tablet using a pressure sensitive device in piles on the display screen of a liquid crystal display.

[0014] As shown in drawing 2, the input unit 3 prepared in a lid 2 The wrap covering 9 constitutes the membrane sheet 8, the back up plate 10, and these which constitute said input keys 3a-3d inside said lid 2. It combines with the body section 1 of equipment so that the flexible cable constituted in one with said membrane sheet 8 and covering 9 may be connected to connector 5a prepared in the control board 5 stored in the body section 1 of equipment. It is used so that the tablet 7 and liquid crystal display 6 which are an input panel may be covered and these may be protected.

[0015] A lid 2 is opened 360 degrees and the lid 2 with this input unit can be used with the gestalt which

turned to the rear face of the body section 1 of equipment, and was put on it, as it is used by changing into the condition of having opened the lid 2 at 180 degrees and having arranged to the rear side of the body section 1 of equipment at the time of an activity as shown in drawing 3 , or shown in drawing 1 and drawing 5 . Moreover, at the time of the receipt which is not used, as shown in drawing 4 , the lid 2 has composition pivotable free so that it may be used as a lid which covers a liquid crystal display 6 and a tablet 7, and protects these and may be kept.

[0016] Thus, the pocket form information processor which can be used in the condition of opening the lid 2 with an input unit 360 degrees, and turning to the rear face of the body section 1 of equipment Since the alter operation which can carry out alter operation of the input keys 3a-3d of an input unit 3 with the finger of the hand 14 of the direction with the body section 1 of equipment, and is used together with a pen input becomes possible as shown in drawing 1 , For example, by using the lid 2 with an input unit of Key Caps as shown in drawing 6 - drawing 8 , an input environment and a check-by-looking environment can be improved, and comfortable alter operation can be realized.

[0017] Drawing 6 is the lid 2 with an input unit which prepared input mode change keys with the pen when using it as a word processor, such as hand entry force and a Roman alphabet input, as input key 3a simply.

[0018] Drawing 7 is the lid 2 with an input unit which prepared respectively the screen / cursor scrolling key, the kanji conversion key, and the decision/Enter key as input keys 3b-3d further. If data are only displayed and seen with a pen, without inputting an alphabetic character, it can process by preparing a screen / cursor scrolling key 3b, and 3d of decision/Enter keys.

[0019] Drawing 8 is the operation gestalt which enabled it to carry out alter operation of the body section 1 of equipment similarly in the condition of having had with the right hand by forming the input keys 3e-3h which direct the same function to an input keys [ which were shown in drawing 7 / 3a-3d ] reverse side. By preparing as an input key which directs a function which is different in all the input keys 3a-3h as other operation gestalten, when not carrying out an alphabetic character input, it can also consider as the gestalt which has and carries out alter operation with both hands.

[0020] Moreover, as shown in drawing 9 , regardless of a lid 2, an input key 11 may be formed in the rear face and side face of the body section 1 of equipment. Drawing 10 is an I-I sectional view in drawing 9 , and software changeover switch 5b which generates the electric signal of ON/OFF is prepared on a control board 5. Arrange the switch carbon button 11 manufactured deformable with plastics etc. in the upper part so that said software changeover switch 5b may be countered, and it is attached in bottom case 1b. It is the operation gestalt considered as substitution of an input mode change key etc. as software changeover switch 5b on a control board 5 is pushed and this software changeover switch 5b is operated by making this switch carbon button 11 push and transform.

[0021] By the specification or application of an information processor, input keys illustrated to these explanation, such as input mode change key 3a, and a screen / cursor scrolling key 3b, do not have to consider as a required input key according to the input key for the optimal actuation, then the specification of the information processor which the manufacturer side developed to input keys 3a-3h since it was good, and do not need to adhere to an input mode change key, the screen / cursor scrolling key, etc. illustrated by explanation. For example, the registration/end key which registers the drawn-up document may be formed. Moreover, many deformation patterns can be considered also about the number of keys, or arrangement. In addition, the input from these keys is inputted into the control circuit which is not illustrated, and processing of processing is performed according to the program set up beforehand.

[0022] Next, as shown in drawing 3 , the case where this invention is applied to the pocket form information processor with which the input key standard to an input unit 3 is arranged at full is explained. Since the body section 1 of equipment of a pocket form information processor is fundamentally made from the object of a miniaturization and lightweight-izing, when the input key of an input device 3 is arranged at full, key size and its key pitch are small, and it is impossible for key input actuation in the condition that alter operation is carried out in a fingertip, and it opened about 360 degrees to the \*\*\*\*\* sake, and can check neither by the lump condition nor the eye. Therefore, in order

to carry out alter operation with the finger of a hand with the body section 1 of equipment, even if it pushes any of four input keys, functional allotment of a key pattern is changed so that it can be used as an input mode change key etc., and as shown in drawing 11, the size of an input key is changed in false. The input keys 3a-3d of the continuous-line part shown all over drawing are this. Input keys 3a and 3b are locations where the standard input key is not arranged, in such a case, secure and display this area from the start, and can be made to carry out alter operation at the time of key pattern modification. Thereby, a user becomes possible [ carrying out alter operation by memorizing the location of an outline ]. At this time, the input key which is not used is changed so that it may not react, even if it pushes (the input key of the part drawn with the broken line shown all over drawing corresponds.). Although the character of a standard input key is indicated actually, it has drawn with the broken line so that it may be easy to understand on explanation. About this key pattern change, it changes on a tablet 7, touch carbon button 7b of business is prepared, and it considers as the configuration which changes on the program set as the control circuit which is not illustrated by ON/OFF of this touch carbon button 7b. [0023] The key pattern change key 12 is formed in the rear face (appearance side of a lid 2 while not using it) of the field in which the input key of the lid 2 with an input unit shown in drawing 4 is prepared as other operation gestalten. When opening this lid 2 with an input unit 360 degrees and turning to the background of the body section 1 of equipment, as shown in drawing 12, by touching the heights 13 of the rear face of the body section 1 of equipment, ON/OFF actuation is carried out and key pattern change directions can be generated. Moreover, when preparing heights in the lid 2 with an input unit, opening a lid 2 to that reverse 360 degrees and rotating the background of the body section 1 of equipment conversely, the key pattern changeover switch of structure as shown in the rear face of the body section 1 of equipment at which said heights contact at drawing 9 and drawing 10 is prepared, and this key pattern changeover switch can be operated by said heights.

[0024]

[Effect of the Invention] It is possible to carry out alter operation with the finger of a hand with the body section of equipment according to this invention as mentioned above, and since it can be used, using together with the pen input which uses the input panel put on the liquid crystal display, the pocket form information processor which improves an input environment and a check-by-looking environment, and realizes comfortable alter operation can be constituted.

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[Translation done.]

## \* NOTICES \*

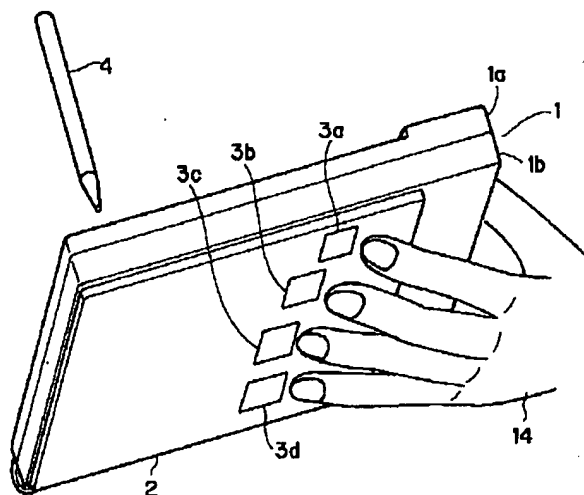
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## DRAWINGS

[Drawing 1]

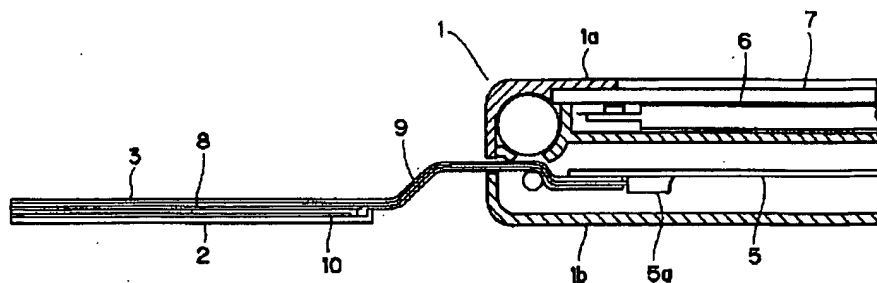
【図1】



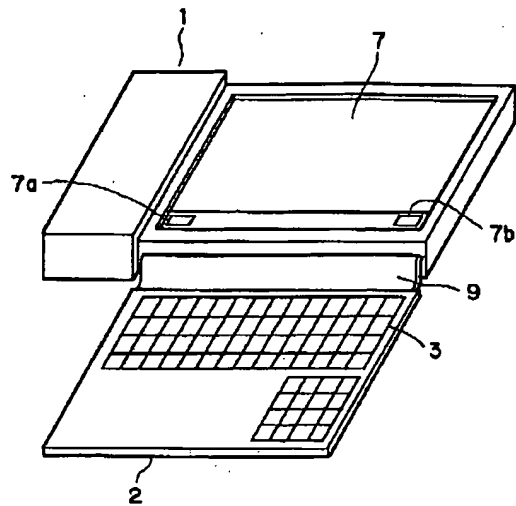
1 : 装置本体部  
2 : 蓋  
3a ~ 3d : 入力キー

[Drawing 2]

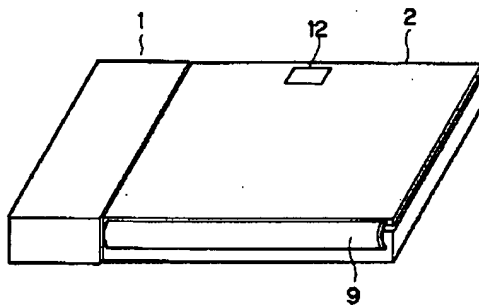
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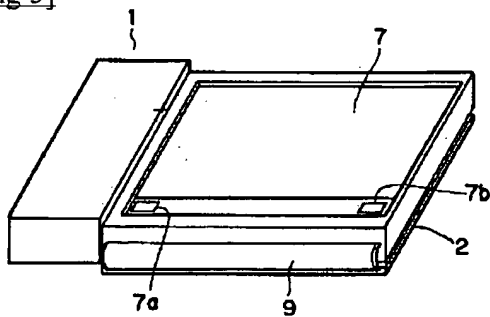
[Drawing 3]  
【図3】



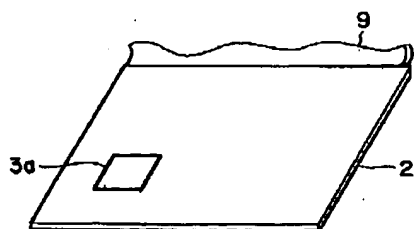
[Drawing 4]  
【図4】



[Drawing 5]  
【図5】

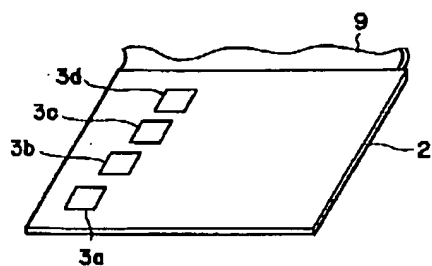


[Drawing 6]  
【図6】



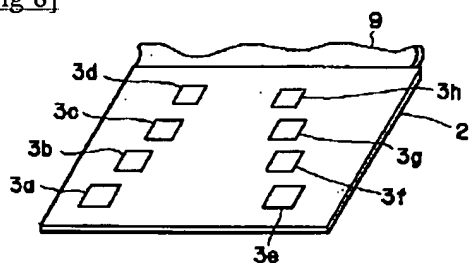
[Drawing 7]

【図7】



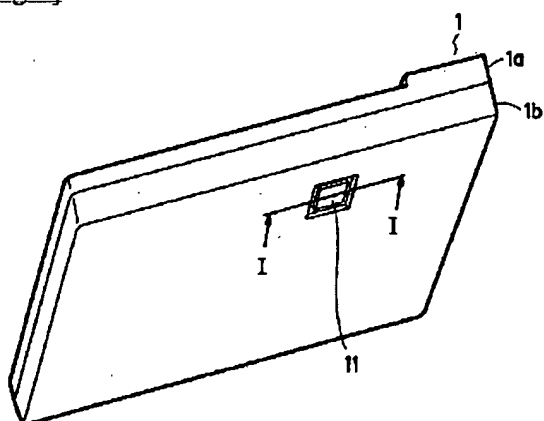
[Drawing 8]

【図8】



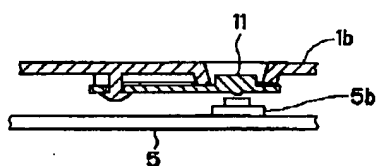
[Drawing 9]

【図9】



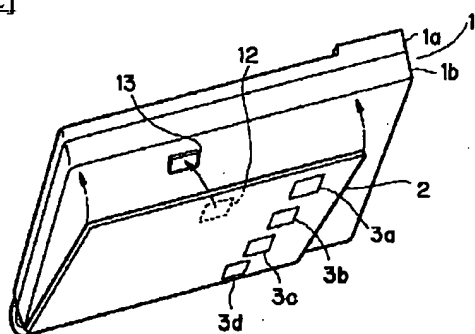
[Drawing 10]

【図10】



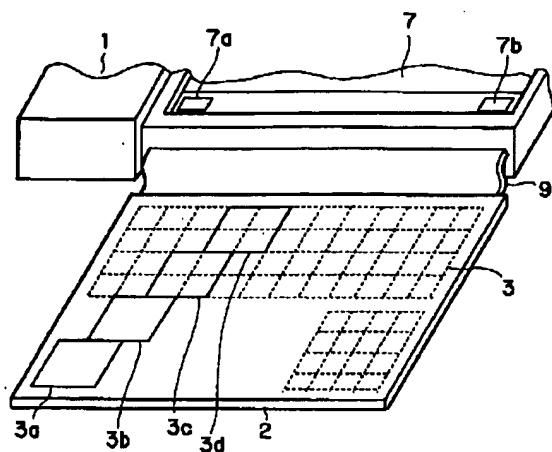
[Drawing 12]

【図12】



[Drawing 11]

【図11】



[Translation done.]